DOCUMENT RESUME

ED 099 692 CE 003 454

AUTHOR Law, Gordon F.
TITLE Impact of Vocational Education and Manpower Training on the Labor Market. Project Baseline Supplemental Report.
INSTITUTION Northern Arizona Univ., Flagstaff.
SPONS AGENCY Technical Education Research Center, Washington, D.C.
PUB DATE 1 Aug 74
NOTE 52p.; For related Project Baseline documents, see CE 003 446-455 and ED 095 309 and 310

EDRS PRICE MF-$0.75 HC-$3.15 PLUS POSTAGE
DESCRIPTORS Data Processing; Delivery Systems; *Educational Assessment; Educational Legislation; Educational Programs; Federal Legislation; Information Centers; Information Needs; *Information Systems; *Labor Market; *Manpower Development; National Programs; Relevance (Education); State Programs; Training; *Vocational Education
IDENTIFIERS *Project Baseline

ABSTRACT

The report investigates issues in the assessment of the impact of vocational education and manpower training on the labor market. Structurally, the report begins with a review of Federal vocational education and manpower legislation and of evaluative research in vocational education and manpower training. Because this report is essentially an attempt to synthesize existing work, deficiencies in the literature are of prime concern. Sadly enough, these gaps are many. The review is followed by a survey of current practices in vocational education and manpower training. The intent is to define the great American enterprise of vocational education and to identify its strong and weak components. Following this survey is a discussion of the state of the art in vocational education and manpower information systems. This forms a necessary prelude to an analysis of the impact of vocational education and manpower training on the labor market, and to the conclusions of the report. Recommendations are made concerning program evaluation, local accountability for vocational education, routes to employment, State supervision of local programs, information systems, and the need for new types of impact studies. (Author)

ED 099692

IMPACT OF VOCATIONAL EDUCATION AND MANPOWER TRAINING ON THE LABOR MARKET

Project Baseline Supplemental Report

Prepared by
Gordon F. Law, Ph.D.
Chairman
Department of Undergraduate Department
of Urban Education
Rutgers University
New Brunswick, New Jersey

Submitted Under Contract To
Technical Education Research
Centers, Inc.
Washington, D. C.

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

For

Project Baseline
Northern Arizona University
Flagstaff, Arizona
August 1, 1974

CE 003 454

The points of view and opinions stated herein are those of the author and do not necessarily represent the views and opinions of Technical Education Research Centers, Inc., Project Baseline or Northern Arizona University.

ABSTRACT

This report investigates issues in the assessment of the impact of Vocational Education and manpower training on the labor market.

Structurally, the report begins with a review of Federal Vocational Education and manpower legislation and of evaluative research in Vocational Education and manpower training. Because this report is essentially an attempt to synthesize existing work, deficiencies in the literature are of prime concern. Sadly enough, these gaps are many.

This review is followed by a survey of current practices in Vocational Education and manpower training. The intent is to define the great American enterprise of Vocational Education and to identify its strong and weak components. Following this survey is a discussion of the state of the art in Vocational Education and manpower information systems. This forms a necessary prelude to an analysis of the impact of Vocational Education and manpower training on the labor market, and to the conclusions of the report.

Recommendations are made concerning program evaluation, local accountability for Vocational Education, routes to employment, State supervision of local programs, information systems, and the need for new types of impact studies.

TABLE OF CONTENTS

	Page
ABSTRACT	i
INTRODUCTION	1
CHAPTER I - REVIEW OF THE LITERATURE	5
Vocational Legislation	5
Career Education	6
Research in Vocational Education	7
Manpower Training Research	9
Curriculum Research	11
References	12
CHAPTER II - VOCATIONAL DELIVERY SYSTEMS	15
State-Level Vocational Administration	15
Administrative Personnel	15
Program Evaluation	16
The Comprehensive High School	16
Administration	17
The Vocational-Technical High School	19
Shared-Time and Shared-Service Schools	21
Post-Secondary and Adult Continuing Education	23
Routes to Employment	23
Some Questions	24
References	25
CHAPTER III - MANPOWER DELIVERY SYSTEMS	27
References	29
CHAPTER IV - INFORMATION SYSTEMS	30
Federal-Level Vocational Education Information Systems	30
State-Level Information Systems	31
Local-Level Information Systems	33
Manpower Information Systems	34
References	35
CHAPTER V - IMPACT OF VOCATIONAL EDUCATION ON THE LABOR MARKET	36
References	39
CHAPTER VI - IMPACT OF MANPOWER TRAINING ON THE LABOR MARKET	40
References	42

Page

CHAPTER VII - RECOMMENDATIONS. 43

Program Evaluation. 43
Local Accountability for Vocational Education 43
Routes to Employment. 43
State Supervision of Local Programs 43
Information Systems 44
Impact Studies. 44

BIOGRAPHICAL SKETCH OF THE AUTHOR. 45

INTRODUCTION

This is one of a series of supplemental reports to the third annual report of Project Baseline. Topics for this series were selected on the basis of importance, availability of data, and need of further investigation.

The impact of Vocational Education and manpower training on the labor market certainly meets these criteria. The topic is important. Both individual programs and the very notion of public Vocational Education must be justified in terms of career success of graduates. There is a wealth of data available. However, as will be seen, there are also serious limitations on the usefulness of this information. Finally, there is a real need for investigation. Partly out of the weaknesses in existing information systems, little work has been done yet in assessing the nationwide impact of Vocational Education and manpower training.

The intent of this report is to draw whatever conclusions are possible about the impact of Vocational Education and manpower training on the labor market. Of secondary importance, but of more immediate value, an attempt has been made to identify limitations in the available data which inhibit the development of less tentative conclusions than those contained herein. Recommendations for the improvement of Vocational Education and manpower information systems, so that a more precise assessment of program successes and failures might be possible, are among the more important recommendations contained in this report.

On another level, an attempt has been made to define and explore significant issues in Vocational Education and manpower training as they relate to the career success of program graduates. Whether or not Vocational Education and manpower training can be defended by current evidence of graduate success, other findings clearly show that programs need to be improved. Ways of improving Vocational Education and manpower training are suggested.

Structurally, the report begins with a review of Federal Vocational Education and manpower legislation and of evaluative research in Vocational Education and manpower training. Because this report is essentially an attempt to synthesize existing work, deficiencies in the literature are of prime concern. Sadly enough, these gaps are many.

This review is followed by a survey of current practices in Vocational Education and manpower training. The intent is to define the great American enterprise of Vocational Education and to identify its strong and weak components. Following this survey is a discussion of the state of the art in Vocational Education and manpower information systems. This forms a necessary prelude to an analysis of the impact of Vocational Education and manpower training on the labor market, and to the conclusions of the report.

A key concern throughout is the definition of Vocational Education. As will be seen in the discussion of Vocational Education information systems, questions of definition must be resolved before data can be

treated as uniform or standardized. This is a rather particular consideration, however, for the purposes of this report, if the definition of Vocational Education described in the American Vocational Association's publication Vocational-Technical Terminology may suffice:

> Vocational or technical training or retraining which is given in schools or classes (including field or laboratory work and remedial or related academic and technical instruction incident thereto) under public supervision and control or under contract with a State board or local educational agency, and is conducted as part of a program designed to prepare individuals for gainful employment as semi-skilled or skilled workers or technicians or subprofessionals in recognized occupations and in new and emerging occupations, or to prepare individuals for enrollment in advanced technical education programs, but excluding any program to prepare individuals for employment in occupations generally considered professional or which require a baccalaureate or higher degree. (1)

This definition is derived from the language of the Vocational Education Act of 1963. It should be noted, however, that the definition in no way limits consideration to Federally funded programs. This immediately suggests a major methodological problem for researchers. While there are certain reporting requirements for most Federally aided programs, there is virtually no way of determining the total "impact" of Vocational Education when many are classified out of whim or expediency and many others go completely unreported.

A related problem is the lack of standardization in statistical reporting. The quality of Vocational Education information systems varies greatly, and this variation significantly compromises the value of available figures.

In sum, conclusions are drawn largely from questionable data about a limited part of Vocational Education. Consequently, it is impossible to deal with certain interesting questions, such as whether or not local programs unsupported by Federal funds have a better cost-effectiveness than those receiving Federal monies. There is no basis for such comparisons at the present time.

The case of manpower training is at once both more simple and more complex. A manpower program is defined legally and is also subject to standardized data collection procedures. At the same time, the objectives of manpower programs are broader than those of traditional Vocational Education programs. Purposes often go beyond training for future employment to include income maintenance, basic education and high school equivalency, and increased emphasis on employability itself. In addition, a variety of political and social considerations are involved in manpower training. For the purposes of this report, however, the discussion is focused on review and interpretation of available impact data. Limitations in information also are examined and possible remedies are suggested.

The true title of this supplemental report should be "Issues and Problems in the Assessment of the Impact of Vocational Education and Manpower Training on the Labor Market." Its recommendations should be carried out so that future researchers will be better able to grapple with the substantive issues involved.

REFERENCE

1. Vocational-Technical Terminology. Washington, D. C.: American Vocational Association. 1971. P. 73.

Chapter I

REVIEW OF THE LITERATURE

VOCATIONAL LEGISLATION

The term Vocational Education means different things to different people. Some use it to describe a particular kind of school or curriculum. Others associate Vocational Education with philosophical concepts dealing with productivity in the work force. People closely involved with administrative and financial aspects of schooling tend to define Vocational Education in terms of funding, especially Federal funding. There is some justification for this, in that Vocational Education has been shaped by the direct influence of Federal legislation more than any other phase of public education. It seems appropriate, therefore, to review briefly some of the more significant Federal acts that provided for Vocational Education.

The Morrill Act of 1862, also known as the Land Grant College Act, introduced two novel concepts. One was that liberal and practical studies could be combined in one institution for the same groups of students. Even more radical at the time, this act established the precedent that the Federal government was indeed entitled to participate in the development of public education.

Fifty-five years later, in 1917, Congress passed the Smith-Hughes Act. Designed especially for the promotion of vocational schooling below the college level, it provided funds on a continuing basis through matching arrangements with the States for salaries of teachers, State and local supervisors, teacher trainers, and administrators in the fields of agriculture, home economics, and trade and industrial. The legislation was criticized later for its rigidity, separation from the mainstream of public education, farm-craft orientation, and uniformity,[1] but it was a major influence on the form, content, and function of Vocational Education for several decades.

The Smith-Hughes Act's strict emphasis on agriculture, industry, and home economics was departed from in the George-Barden Act of 1946. New occupational fields made eligible for Federal vocational funds were distributive and practical nurse education and instruction in fishery trades. Title III of the George-Barden Act provided administrative guidelines for the technical education section of the National Defense Education Act, thus directing a major part of the funding to secondary vocational schools. This led to heated controversy between proponents of secondary-level vocational-technical programs and administrators of the burgeoning new two-year colleges.

The Manpower Development and Training Act of 1962, enacted under the mounting threat of unemployment, was designed to reduce the number of people in the poverty cycle. It was intended to improve the work potential of those individuals considered least likely to succeed on their own. Administered jointly by the U.S. Department of Labor and the U.S. Department of

Health, Education, and Welfare, the Manpower Act provided subsistence and vocational training for adults of working age.

The Vocational Education Act of 1963 (PL 88-210) brought an end to the Smith-Hughes era by making drastic changes in the definition and scope of Vocational Education. In large part an outcome of President Kennedy's Panel of Consultants Report, the 1963 act placed major emphasis on people rather than programs. It broke away from the secondary school and occupational category restrictions of previous acts, and, through its provisions for the Vocational Education of persons with special needs, it continued the social engineering concept of the Manpower Act.(2)

Five years later, Congress passed Public Law 90-576, the Vocational Education Amendments of 1968. These further shifted the pattern of funding from occupational categories to groups of people in need of training. These target groups were described as new entrants to the job market, job holders in need of upgrading, those in need of retraining, persons with academic or socio-economic disadvantages, and handicapped persons who, because of their physical or mental condition, could not succeed without special assistance.(3)

Exemplary programs and projects, Part D of the 1968 Vocational Amendments, became a vehicle for a variety of non-traditional approaches to Vocational Education. Of particular significance were such guidance-related activities as work orientation for elementary school children, and programs to develop skills in self-assessment and occupational decision-making, as well as positive work habits and attitudes.

The contemporary legislation abandoned a number of vital aspects of the Smith-Hughes Act: mandated follow-up studies;(4) standards regarding the qualifications of teachers, counselors, supervisors, and directors,(5) especially those standards relating to actual experience in the work force, provisions for the field supervision of teachers, and specific allocations of funds for the pre-service and in-service instruction of teachers and other professionals;(6) and, perhaps most critical of all, funding stability that allowed State departments of education and local education agencies to have some real knowledge of anticipated income.

Career Education

An important recent movement in public education which has been heavily endowed with Federal Vocational Education funds is that approach to teaching and counseling called career education. Named and given high priority support by former U.S. Commissioner of Education Sidney P. Marland, Jr., career education has been described as a viable replacement for the general curriculum. Speaking of the general curriculum as an abomination, "something we should get rid of," Marland called for an integrated blend of vocational and academic school work that would prepare all young people to achieve their maximum potential.(7)

The American Vocational Association, seeking to give focus and direction to the general concept of career education, conducted an invitational workshop for 100 leading vocational educators immediately before its 1971 national convention in Portland, Oregon. Among the positions developed

at the workshop were the idea that career-oriented education is needed by all people, and its logical corollary, that all educators need to be involved in the career education process. Career education, as articulated at the AVA workshop, would include:

- Early orientation to the world of work
- Knowledge concerning occupational clusters and career ladders
- Skill in self-assessment
- Ability to make intelligent decisions regarding occupations
- Development of occupational skills and related knowledge and abilities
- Development of attitudes conducive to the acceptance of occupational responsibility
- Knowledge and abilities related to general employability

Although Marland and other early proponents of career education seemed to think it was an appropriate replacement for Vocational Education, it is now clear that each term has a separate and definite identity. Efforts to reduce the ambiguity of the two terms have been made by State education departments, the U.S. Office of Education, the joint American Vocational Association-National Vocational Guidance Association Commission on Career Guidance and Vocational Education, and the American Vocational Association House of Delegates. There appears to be growing acceptance of the idea that career education is really another name for career development, not Vocational Education, and as such, it is most closely related to theories of human development, career guidance, and vocational development.

If one accepts the principle that Vocational Education is involved directly in employability -- the development of marketable skills and knowledge -- and that career education is synonymous with an expanded and operational expression of career guidance, their interdependent roles and functions can be perceived.

RESEARCH IN VOCATIONAL EDUCATION

Students of Vocational Education are singularly fortunate in having available to them a series of works that treat important aspects of the field in a systematically analytical fashion. This is the Review and Synthesis series published by the Center for Vocational and Technical Education at the Ohio State University.

Of particular interest are two of the series publications, J. Robert Warmbrod's Review and Synthesis of Research on the Economics of Vocational-Technical Education[8] and J. Kenneth Little's Review and Synthesis of Research on the Placement and Follow-Up of Vocational Education Students.[9]

Both review the available literature, reach conclusions about the results and quality of past research, and suggest topics and approaches for future work.

Warmbrod is concerned largely with cost-benefit and cost-effectiveness analyses of Vocational-Technical Education. The basic question is whether or not Vocational Education is worth the increased cost of such training. The knot of methodological problems associated with such analysis is treated also.

Accurate and detailed follow-up data on Vocational Education students are essential to the various forms of economic analysis discussed by Warmbrod. Little considers the methodology of graduate follow-ups and describes various studies and their findings.

Both reviewers find considerable contradiction and ambiguity in the research. Warmbrod notes:

> Cost-benefit and cost-effectiveness studies of public school programs of Vocational-Technical Education are just beginning. The findings of the research reported to date are inconclusive.(10)

However, he reports that well-designed studies indicate that "Vocational-Technical Education is a sound investment."

Little strikes this same note of cautious optimism, concluding that "Vocational-Technical Education programs are serving important parts of our population in ways that these people would not be helped without them."(11)

A key source of data on student placement for this report was the Project Baseline Second National Report, Learning a Living Across the Nation.(12) It was also quite valuable in its analysis of deficiencies of Vocational Education information systems at various levels.

In this connection, a number of State plans were reviewed, including those from Arizona, (13) Illinois, (14) Iowa, (15) Maryland,(16) Minnesota, (17) New Jersey,(18) Tennessee,(19) and West Virginia.(20) These were considered particularly in light of the U.S. Office of Education's Form 3140, "Outline for Descriptive Report."(21)

The related question of evaluation was approached primarily in terms of possible improvement. The works of Nerden(22) and Ash(23) were especially helpful.

As to the basic question of the impact of Vocational Education on the labor market, disappointingly little analytical work was found. Largely because of its National political significance, the special task force report Work in America(24) figures prominently in this supplemental report. Unfortunately, its critique of Vocational Education appears quite unsatisfactory in a number of respects. Several rebuttals to Work in America, including those by Schaefer(25) and Koo,(26) were reviewed.

Several articles dealing with the problem of impact were found in Vocational Education: Social and Behavioral Perspectives, edited by Schaefer and Kaufman.(27) Of particular interest was a chapter by Berg, "Manpower Analysis and Vocational Education: Problems and Perspectives," as was also Berg's book, Education and Jobs: The Great Training Robbery.(28)

It became quite clear that vocational educators are often too narrow in their consideration of possible effects of their actions. Most evaluation of Vocational Education has been conducted primarily in terms of placement and earnings of graduates. This information is, of course, easily quantifiable. It is also absolutely essential as a foundation for any analysis. However, other types of impact should be considered, and it appears that those outside of Vocational Education are often more sensitive to these issues.

One example of a healthy concern for human enrichment as well as career satisfaction appears in the October 1973 issue of The Journal of Aesthetic Education -- a special issue on the arts, cultural services, and career education.(29) This issue conceptualizes and provides curriculum guidelines for the arts and humanities career education cluster.

While the eventual impact of career education is not really within the scope of this report, enough of the rhetoric concerning the purposes of this reform has been reviewed to suggest that the problems of evaluative research would be awesome.

Within the more narrow confines of Vocational Education a great deal remains to be done. Most of the available data come from isolated and sometimes contradictory studies, rather than from any uniform and standardized national data base. Most of the research is concerned with the issues of earnings and comparative employment rates almost to the exclusion of other considerations.

Great gaps remain. What is needed for a true understanding of the impact of Vocational Education is a national data base supporting studies which in detail relate vocational training to such questions as attitudes toward work, job satisfaction, hiring practices, labor relations, discrimination in employment, occupational mobility, productivity, and economic development. Until such work is done, our understanding can be only partial and distorted.

MANPOWER TRAINING RESEARCH

A key source for information on manpower research activity is the Manpower Administration's Manpower Research and Development Projects,(30) which provides abstracts on projects supported by the Manpower Administration. Of particular interest in the development of this report was Chapter 4, "The Labor Market."

One project, the National Longitudinal Studies of the Labor Force Behavior of National Samples of Men (45-59), Women (30-44), and Male and Female (14-24), deserves special attention.

One of the studies conducted by this project, Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth: Volume I, reaches some conclusions which bear directly upon the subject of this report:

> Education has a profound effect upon knowledge of the labor market...Young men with vocational training outside of regular school tend to have greater knowledge of the world of work than those who have not, and they also enjoy a pay differential over those without training. Because there is a correlation between training outside of regular school and number of years of regular school completed, we cannot be certain to what extent these relationships reflect an independent influence of training and to what extent they simply reflect the influence of education that has already been examined.(31)

The ultimate source for information regarding manpower programs is the 1973 Manpower Report of the President.(32) Before the impact of these programs on the labor market could be assessed fairly, some consideration had to be given to the question of the purpose of manpower programs and their relationship to Vocational Education.

Two works were found to be especially helpful: "Federal Manpower Programs" by Ellis(33) and Vocational Education and Manpower Training: Report of the AVA National Legislative Seminar.(34)

Both Ellis and certain participants at the legislative seminar point out that manpower programs cannot be assessed solely, or even primarily, in terms of immediate labor market impact. Nevertheless, some studies have been concerned with the problem. These include a U.S. Department of Labor report, The Influence of MDTA Training on Earnings(35) and a report to the Health, Education, and Welfare Secretary, Education and Training: Learning for Jobs.(36) Both studies indicate that MDTA programs are effective in raising earnings of graduates.

Two rich sources for materials on the impact of manpower training are the periodicals Monthly Labor Review and Manpower. One article, for instance, argued that the 1971 unemployment rate might have been 6.2 percent instead of 5.9 percent, if it had not been for Federal manpower programs.(37)

The literature on manpower training is quite extensive, but because of the diversity of types of programs and program objectives, relatively little of this body of literature is addressed directly to the concerns of this report. To some extent, the elaborate machinery that has been established for obtaining follow-up information on manpower program participants does not seem to have been utilized to its fullest potential. While it is recognized that manpower programs serve a variety of purposes, more should be done to describe the role of manpower training in providing graduates with work related to their training.

CURRICULUM RESEARCH

One obvious influence on the success of Vocational Education is the quality of the Vocational Education curriculum. Inasmuch as Vocational Education is particularly sensitive to the impact of technological change upon the employment market, considerable effort is involved in keeping current the content of vocational instruction. The usual method is occupational task analysis. One development in this area has been an increasing emphasis on the determination of common tasks and the construction of curricula that provide students with a variety of entry options. Two projects worthy of special note are Alabama's Designing Educational Learning From Task Analysis and Massachusetts' Project CAREER/CAN (V0022VZ and V0260VZ).(38)

Of longer range significance is the National Planning Association's Implications of Changes in Occupational Characteristics in the Next Decade for Planning Vocational Education (V0152VZ).

All too often, quality curriculum materials have been submerged in the vast mass of inaccessible educational literature and lost to the busy practitioner. One promising development here has been the creation of a National Network for Curriculum Coordination in Vocational and Technical Education, with seven regional centers. The network should prevent duplication of effort and allow for rapid dissemination of curriculum materials.

REFERENCES

1. Venn, Grant. Man, Education and Work. Washington, D.C.: American Council on Education. 1964.

2. Kliever, Douglas E. Vocational Education Act of 1963: A Case Study in Legislation. Washington, D.C.: American Vocational Association. 1965. P. 14.

3. P.L. 90-576. Sec. 122. (a) (4).

4. Follow-Up Study of 1958 Graduates of Trade and Industrial Programs in Public Vocational and Technical High Schools. North Atlantic Region. Albany: New York Division of Industrial Education. n.d. P. 1.

5. Administration of Vocational Education: Vocational Education Bulletin No. 1. Washington, D.C.: Federal Security Agency, 1948. P. 13.

6. Administration of Vocational Education: Vocational Education Bulletin No. 1. P. 73.

7. Marland, Sidney P. Jr. "Career Education Now." In Gordon F. Law (Ed.) Current Concepts in Vocational Education. Washington, D.C.: American Vocational Association. 1971. P. 42.

8. Warmbrod, J. Robert. Review and Synthesis of Research on the Economics of Vocational-Technical Education. Columbus, Ohio: The Center for Vocational and Technical Education. 1968. 51P.

9. Little, J. Kenneth. Review and Synthesis of Research on the Placement and Follow-Up of Vocational Education Students. Columbus, Ohio: The Center for Vocational and Technical Education. 1970. 48P.

10. Warmbrod, P. 39.

11. Little, P. 36.

12. Lee, Arthur M. and Robert Sartin. Learning a Living Across the Nation. Project Baseline Secord National Report. Volume II. Flagstaff: Northern Arizona University. 1973. 472P.

13. Arizona State Plan. 73-74. Vocational Education.

14. A State Plan for the Administration of Vocational and Technical Education in Illinois.

15. Iowa State Plan for the Administration of Career Education.

16. Maryland State Plan for the Administration of Vocational-Technical Education Programs.

17. A State Plan for the Administration of Vocational Education Under the Vocational Education Amendments of 1968 and Part F. Higher Education Act of 1965. Minnesota State Board of Education.

18. New Jersey State Plan.

19. Tennessee State Plan.

20. State Plan for the Administration of Vocational Education. West Virginia Board of Education.

21. "Outline for Descriptive Report." OE Form 3140. Washington, D.C." Office of Education. 1971.

22. Nerden, Joseph. "Statewide Evaluation of Vocational Education." In Gordon F. Law (Ed.) Current Concepts in Vocational Education. P. 402.

23. Ash, Lane et al. Instruments and Procedures for the Evaluation of Vocational/Technical Education Institutions and Programs. Washington, D.C.: American Vocational Association. 1971. 144P.

24. Work in America. Report of a Special Task Force to the Secretary of Health, Education, and Welfare. Cambridge, Massachusetts: MIT Press. 1972. 262P.

25. Schaefer, Carl J. "The Content of Work in America is Inacurate, Ill-Conceived, and Poorly Stated." Feedback. Vol. 8 No. 1. Winter 1973. P. 3.

26. Koo, Po-Yen. "A Rebuttal to the Attack on Vocational Education in Work in America, an H.E.W. Report." Feedback. Vol. 8 No. 1. Winter 1973. P. 1.

27. Schaefer, Carl J. and Jacob J. Kaufman (Eds.) Vocational Education: Social and Behavioral Perspectives. Lexington, Massachusetts: D.C. Heath and Company. 1971. 208P.

28. Berg, Ivar. Education and Jobs: The Great Training Robbery. New York: Praeger. 1970. 200P.

29. The Journal of Aesthetic Education. Vol. 7 No. 4. October 1973.

30. Manpower Research and Development Projects. 1973 Edition. Washington, D.C.: U.S. Department of Labor, Manpower Administration. 1973. 330P.

31. Career Thresholds. Volume I: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Washington, D.C.: U.S. Department of Labor, Manpower Administration. 1970. 266P.

32. 1973 Manpower Report of the President. Washington, D.C.: U.S. Department of Labor. 1973. 253P.

33. Ellis, Mary L. "Federal Manpower Programs." (Mimeo). Washington, D.C.: Technical Education Research Centers, Inc. 1973. 30P.

34. Vocational Education and Manpower Training: Report of the AVA National Legislative Seminar. Washington, D.C.: American Vocational Association. 1969. 32P.

35. The Influence of MDTA Training on Earnings. Washington, D.C.: U.S. Department of Labor, Manpower Administration. 1968. P. 40.

36. Education and Training: Learning for Jobs. Washington, D.C.: U.S. Department of Health, Education, and Welfare. 1968. P. 95.

37. Small, Sylvia S. "Statistical Effect of Work-Training Programs on the Unemployment Rate." Monthly Labor Review. Vol. 95 No. 9. September 1972. P. 7.

38. Applied Research Projects Supported in FY 1974 Under Part C of the Vocational Education Amendments of 1968. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education. 1974.

Chapter II

VOCATIONAL DELIVERY SYSTEMS

STATE-LEVEL VOCATIONAL ADMINISTRATION AND SUPERVISION

The impact of Vocational Education on the labor market is determined at least partially by program quality. On one level are the quality of training in the local school and the effectiveness of the school in placing graduates in employment related to their training. At another level is the effectiveness of State leadership in selecting local programs for financial support.

State departments of education play a key role as intermediaries between the Federal government and local programs. Perhaps the most significant activity of State departments of education is that of providing direction to local program development and disbursing Federal funds into desirable channels. For each State, the annual State Plan for the Administration of Vocational Education should elaborate this role.

The plans, prepared by State departments of education, have three main components: Part I, Administration Provisions; Part II, Projections, and Part III, Descriptive Reports.

A review of State plans revealed that the greatest degree of consistency exists in Part I materials and the least in descriptive reports. This is largely due to the fact that Federal guidelines are most specific for administration provisions.

Following are comments regarding specific sections of State plans that bear upon the theme of this report.

Administrative Personnel

Although Part I of State plans generally has a high degree of uniformity, considerable variation is found in the section (1.32) concerning specifications for administrative staff. Some States went no further than to comment that local vocational administrators and supervisors would be "qualified," while others described specific details concerning occupational experience, background in Vocational Education, professional preparation, and certification.

The State Plan for Vocational Education in Wisconsin: 1974-78 provides just this sort of desirable detail. The local Vocational Education coordinator's credentials, areas of college-level course work, work experience, and teaching experience are described in clear terms. General and specific responsibilities also are detailed. Unfortunately, descriptions of other positions are not; in some other plans they are.

There was a similar variation in the qualifications of State Vocational Education officials as reported in Part I of State plans. Although

formal credentials are not sufficient in themselves, it is likely that some variation in quality of State leadership is related to variation in qualifications.

Program Evaluation

The 1.5 section of State plans dealing with program evaluation reveals an apalling lack of substance. In most cases, States merely echoed the Federal guideline that evaluation would take place. Among the States that made some effort to spell out the form and content of evaluation, there was no pattern of agreement as to what should be evaluated, by whom, and for what purpose. Evaluation too often is regarded as a dubious luxury, and lack of detailed standards encourages neglect.

Before placing all the blame on States for the general lack of detailed plans for program evaluation, it seems appropriate to explore more fully the National posture of Vocational Education evaluation and to examine the specificity of Federal guidelines on this topic.

In spite of some notable exceptions, namely, the National study of Vocational Education evaluation conducted by Lane Ash[1] and the development of criteria for institutional accreditation in the Southern region, it may be fair to say that there is no National program or policy regarding the evaluation of Vocational Education at State and local levels.

Local vocational evaluation, aside from where it is part of the institutional accreditation of comprehensive high schools and community colleges, is virtually nonexistent. The role of the State, therefore, is extremely significant. If the State education department assumes its role to be merely that of watchdog for compliance to regulations, a serious vacuum is left in the evaluative process.

The role of State advisory councils in the evaluation of local programs appears to vary widely from one State to another. In some, they work closely with State officials in the development of evaluative criteria and method. In others, an adversary condition seems to exist, with the advisory council looking upon itself as a monitor of State education department operations.

The idea of third party evaluation has gained popularity in several States; an outside consulting firm is hired by the State education department and/or the advisory council -- sometimes working together, sometimes not -- to develop and conduct a Statewide program assessment. Here a word of caution is offered to those who would delegate such a fundamental aspect of responsibility to outside agencies: Unless the monitors are themselves monitored, there is danger that the State's over-all delivery system will be placed at the mercy of technicians and specialists who may lack sufficient background knowledge and wisdom to evaluate fairly, or who may promulgate some untested fad or simplistic system.

THE COMPREHENSIVE HIGH SCHOOL

Over the past twenty years, the term comprehensive high school has been applied to virtually every secondary school that combines general,

vocational, and academic studies. As so clearly stated by Panitz,[2] the term is virtually meaningless as a description of a particular kind of school; rather, it means whatever the administrator wants it to mean. Franklin J. Keller,[3] an early champion of the comprehensive school concept, proposed that such a school should be fashioned out of the vocational school model. Conant,[4] on the other hand, seemed to believe that the college-oriented academy was the appropriate base for such a transmutation.

The basic principle for the comprehensive high school in America has been one of equal opportunity in a democratic society -- that each student should be able to choose a combination of courses and programs that best suits his or her individual capacities and aspirations.

Some forms of Vocational Education have been more at home in comprehensive high schools than others. Business education, for example, has been an integral part of the secondary school curriculum for over seventy years. In fact, the early acceptance of commercial subjects by academics was one of the reasons why they were not identified in the Smith-Hughes Act of 1917. Although clearly designed to prepare youth for vocational competency in a variety of office occupations, business education had to wait for the Vocational Education Act of 1963 to gain legitimacy as a Federally funded program.

Other Vocational Education programs which have been associated closely with the comprehensive high school are agricultural education, distributive education, and home economics. Two of these, agriculture and home economics, were made eligible for Federal aid through the Smith-Hughes Act. Distributive education received major stimulus in the George-Barden Act of 1946.

Health and personal service occupations and industrial trades also are found in comprehensive high schools. A prevocational program in industrial arts is offered in virtually all secondary schools in the country; it frequently is described as vocational trade and industrial education, even though its goals and its methods of teaching are fundamentally different from those of vocational industrial education.

Administration

No discussion of the role of Vocational Education in the comprehensive high school would be complete without some examination of administrative patterns, as they have a profound effect on the scope and quality of the local program.

Although it must be recognized that great variety exists from one school system to another in the organization of Vocational Education in comprehensive schools, there are some patterns -- and problems -- that may be considered typical. These commonalities are derived largely from guidelines set in Federal legislation.

The main local administrative office, that of Vocational Education director, is a lineal descendent of Federal acts which allocated funds for local administration. The following description of a local director of Vocational Education appeared in the 1948 edition of Administration of Vocational Education: Vocational Bulletin No. 1, published by the U.S. Government Printing Office:

> Local Director. - A local director of Vocational Education is a person who is directly responsible for the development of a local program which includes two or more fields of Vocational Education for which Federal funds are used, and the coordination of the work of the local supervisors in these fields.
>
> The State plan may provide for the use of George-Barden funds as reimbursement for the salary and necessary travel expenses of a local director providing he meets the minimum qualifications for such a local director as given in the State plan. These minimum qualifications should cover:
>
> 1. Practical work experience in one or more of the occupational fields in which he is to direct training.
>
> 2. Teaching experience in a vocational field meeting standards of the State plan.
>
> 3. Supervisory experience in a program of Vocational Education meeting standards of the State plan.
>
> 4. Technical and professional education which includes a study of philosophy and administration of Vocational Education.(5)

The position of local director of Vocational Education became the prevalent local vocational administrative position largely because of the fact that it was eligible for as much as $4,000 in annual Federal subsidy -- at a time when most local administrators earned less than $10,000 a year.

The office of local administrator holds considerable prestige in Vocational Education circles, but it never has found an established place in the administrative hierarchy of school districts. In some large districts, the Vocational Education director functions as an associate or assistant superintendent with responsibilities for adult and apprentice training and all vocational and practical arts programs for high school students. At schools with more limited vocational programs, the local director is more likely to function at the level of department chairman. Furthermore, and much more significant, the local directorship is subject to rapid transformation over a short period of time; it is highly susceptible to any changes that take place in board and administrative composi-

tion and policy. And, because it deals with aspects of the educational program that are typically outside the legitimacy of traditional college preparatory courses, the position often receives only peripheral attention.

The vitality of the Vocational Education program is in large part dependent on such temporary and fortuitous circumstances as having school board members and administrators who sincerely believe in its value. All too often, changes in top administration and school board composition, as well as in the office of the principal and guidance director, suddenly can relegate an excellent program to shambles.

Another problem has been the fact that the large business education program became the responsibility of the Vocational Education director only recently, because it was not made eligible for Federal subsidy until 1963. This long split within the "family" established dualism within dualism and still represents a serious deterrent to the identity and effectiveness of vocational instruction.

Budgeting and funding methods represent another fundamental flaw associated with the operation of vocational programs within comprehensive high schools. This includes both the way decisions are handled locally, and the relationship of local operations to State and Federal funding.

Decisions at the local level regarding the purchase of major instructional equipment and the allocation of annual expenditures for tools and supplies usually are placed in the hands of educational generalists. This means there is a real danger that purchases will be based on strictly monetary considerations, rather than practical knowledge of up-to-date skill requirements.

Concerning State and Federal funding, there are many examples of local school districts that were only too glad to establish area vocational programs to get funds. After the period of construction and capital outlay and the receipt of massive, but short-term, funding for salaries, many new facilities sank back to a marginal operation, because of limited financial support on a continuing basis.

The most damaging impact of the boldly conceived, but poorly managed, vocational program is on the students, who assume they are going to be prepared to enter the work force. A second form of damage is the image of failure left in the minds of students, faculty, and taxpayers.

THE VOCATIONAL-TECHNICAL HIGH SCHOOL

The Smith-Hughes Act of 1917 had a considerable, if somewhat belated, influence on the formation of the vocational-technical high school. In the early days of Vocational Education under the Federal board established by the Smith-Hughes Act, the delivery of agriculture, home economics, and trade and industrial education was provided in separate types of institutions. In 1918 specific guidelines were issued in Trade and Industrial Education: Organization and Administration Bulletin No. 17.(6) It said that six types of trade and industrial schools could be organized under the act; which did not allocate funds for school buildings:

A. Unit Trade

B. General Industrial in Cities under 25,000

C. Part-time Trade Extension

D. Part-time Trade Preparatory

E. Part-time General Continuation

F. Evening Industrial

For some years thereafter, Federal bulletins for the administration of Vocational Education gave little attention to the institutional setting for vocational instruction. Clearly, however, the early administrators of the Federal program did not expect Vocational Education to be located in high schools.

By 1948, the Federal Bulletin Administration of Vocational Education(7) had identified the public high school as a legitimate setting for instruction in agriculture, home economics, and distributive education. Trade and industrial education, however, seemed especially suitable for the separate vocational school. For example, the Type A program required a six-hour school day:

> ...one-half -- not less than 3 consecutive clock hours -- to practical work on a useful or productive basis, with additional time given to instruction in segregated classes in the necessary technical and other related subjects.

Subsequent to the Vocational Education Act of 1963, when Federal funds were first made available for the widespread construction of area vocational schools, there was a departure from the exclusive focus of these institutions on trade and industrial education.

The degree of accommodation to other fields of vocational services has been far from consistent across the country. When 1963 Vocational Education Act funds became available for construction of new area facilities, some States, like New York, interpreted the requirement of five occupational fields to mean fundamentally different fields of service, such as agriculture, business, distributive, home economics, health services, and industrial trades. Some other States authorized money for constructon of new schools that provided for five or more industrial occupations -- auto mechanics, carpentry, electricity, machine shop, and plumbing.

An examination of vocational-technical high schools today reveals that, although they do not suffer all the restrictions of comprehensive high schools, they still face many problems as effective vehicles for the delivery of vocational instruction. These concern programs, staff, community services, and adaptability.

Coe summarizes:

> Many programs are based on unsound principles, taught by occupationally unqualified teachers and hastily structured to take instant advantage of Federal funds.(8)

Among fourteen principles for quality Vocational Education enunciated by Coe are the following:

- A quality program is administered and supervised by personnel who are educated and experienced in Vocational Education, who understand the needs of pupils and of business and industry and who are able to work effectively with employers, labor, other school officials and employment and social agencies.

- Teachers in a quality program are masters in their occupation and have completed teacher-training programs where they have learned how to impart their knowledge and skills to pupils.

- A quality program is based on an analysis of each occupation to determine what is required to perform as a successful worker in that occupation.

- A quality program adjusts its curriculum to changing business and industrial conditions, technological change and the requirements of the labor market.

SHARED-TIME AND SHARED-SERVICE SCHOOLS

In the period since passage of the 1963 Vocational Education Act, there has been a dramatic growth of shared-time Vocational Education centers in some sections of the country. This development has been especially significant in New York State and Pennsylvania; over fifty large new area centers have been established in each State.

The Board of Cooperative Educational Services (BOCES) of New York State has been most effective as an administrative unit for shared-time vocational instruction. Originally designed as an intermediate district to provide shared educational services to rural schools, the BOCES organizations began to provide vocational instruction in rented facilities in the late 1950s.(9) Passage in 1967 of State legislation that gave BOCES bonding authority and allowed construction of permanent facilities was a most important stimulant to the rapid growth of shared-time centers.

Shared-time Vocational Education schools generally are designed to provide only part of a student's education, with academic instruction and physical education taking place in the student's home high school. Several shared-time plans are in effect -- vocational instruction for half-days, or full-time for up to four weeks -- with geography and number of schools participating among the determining factors.

The shared-time centers have been described as a hybrid,[10] combining some of the better qualities of both the specialized vocational high school and the comprehensive high school. The advantage of such a center is that a student can receive high quality vocational instruction, often in an occupational field that could not be offered by a single high school, and also enjoy the social and curriculum benefits of a multipurpose comprehensive high school. For those who have concerns about the duality of vocational and academic education provided by separate administrative systems, the shared-time concept may be an acceptable alternative. Inherent in the BOCES operation is the idea that the shared educational services are integrated extensions of component school districts, not separate programs.

Although the vocational offerings provided by BOCES and other forms of intermediate school districts are viewed as extensions of home school curricula, they are protected from the exigencies of expediency and neglect that are common in so-called comprehensive high schools. A shared-time center is separate, if not autonomous, with facilities expressly designed for vocational instruction and administrative faculty and support services selected for their knowledge of and commitment to Vocational Education. Thus, the program is more likely to have an identity and a stability that can withstand fluctuations in financial resources and in attitude toward vocationalism with each change in local school administration and school board composition.

Perhaps the most important contribution of shared-time and shared-service approaches to vocational instruction has been their opening of an extensive variety of Vocational Education opportunities to virtually the whole spectrum of the high school population in a State. The specialized vocational high schools traditionally have had a rather restricted enrollment in terms of prior educational achievement, socio-economic status, or aspirations for further education. Notwithstanding these factors, the typical vocational student, simply stated by Kaufman and Schaefer,[11] is a product of the selection process of the vocational school and his or her decision to attend, despite any social stigma. In shared-time schools, this decision is less charged and far less restrictive, because students have the opportunity to participate in college preparatory subjects and extra-curricular activities as well as occupational training. As a result, students in Vocational Education are much more likely to be representative over-all of their home schools.

This integrated approach is lost when the shared-time school elects to schedule students on a one-week or two-week plan. Although these arrangements have certain administrative advantages, especially for busing, they tend to reduce the educational opportunities of academic students and force a home school to isolate all vocational students in special classes.

A recent development that seems worthy of attention is the introduction of shared-time opportunities in specialized vocational high schools.

Perhaps the greatest benefit of such arrangements is that they provide an opportunity for training to students who may profit from Vocational Education, but who were unable or unwilling to enroll full time in a vocational school. Vocational educators should be concerned with the occupa-

tional preparation of all students, not just those who commit themselves to enrollment in vocational schools on a full-time basis.

POST-SECONDARY AND ADULT CONTINUING EDUCATION

A variety of programs and institutions provide vocational instruction for people beyond high school age. These include area vocational schools; adult programs in vocational and comprehensive high schools; post-secondary, adult continuing education, and college-level programs in technical institutes and community colleges; proprietary and non-profit private trade and business schools; and vocational and technical schools operated by industry, organized labor, religious and social organizations, and the military services. In addition, there are the Manpower training programs, often conducted in one or another of these institutions.

The generic term "post-secondary," although it implies high school graduation and college level work, also can mean vocational instruction at a lower grade level for youth or adults who have not completed high school.(12) Typical noncollegiate programs are pre-employment training in skilled and semi-skilled occupations, upgrading and extension courses for employed persons, apprentice training, and training in basic academic skills needed for employability.

The Vocational Education Act of 1963 has had a profound influence on the nature and scope of post-secondary Vocational Education. Not only did it clearly make technical institute and community college instruction below the baccalaureate degree level eligible for Federal aid, it also broke away from the categorical limitations of the Smith-Hughes and George-Barden Acts. Another important stimulus to post-secondary vocational development was the provision for area school construction money, which encouraged two-year colleges to participate in Vocational Education.

Although there is general endorsement for greatly expanded programs of continuing Vocational Education for persons of all ages and levels of economic status in all sections of the country, there seems to be little agreement as to the coordination of resources through a multiplicity of public and private agencies and institutions. And in spite of the proliferation of new post-secondary programs in recent years, there still exists an uneven pattern of delivery, both in terms of the occupational fields and the persons to be served.

ROUTES TO EMPLOYMENT

A fundamental question that seems to be missing in State and Federal assessments of Vocational Education is, what is the optimum route to full employment and advancement in each occupational field? When Venn(13) wrote about the highlights of formal vocational philosophy as he saw them in 1964, he criticized the uniformity, duality, high school practical and terminal emphasis, the segregated track, farm-craft and shop orientation, and finally the use of the term "vocational." Although some of Venn's views of a decade ago are subject to debate, especially his vain assumption that common schools were ready to take on responsibility for Vocational Education, there is no question that he called attention to a system of

education that had not kept up with the times.

The question of routes to employment is of obvious significance. Before vocational programs for an occupational field are planned, the pattern of occupational entry and advancement in that field should be investigated. Studies such as Horowitz and Herrnstadt's The Training of Tool and Die Makers may be useful. It delineates the various training paths taken by workers and suggests effective approaches and program types to the schools.(14)

SOME QUESTIONS

The recent proliferation of educational institutions involved in some form of Vocational Education raises a number of questions about institutional responsibility, administrative leadership, duplication of effort, and financial stability. Some of these may be answered by a new University of Connecticut project, A comparative study of States' staffing patterns and delivery systems of Vocational Education and their relative effectiveness, which was funded recently under Part C of the Vocational Education Amendments of 1968.(15)

In addition, there needs to be a greater definition of the following: What system is "best" for its students? Which is best in cost-benefit terms? How does each fit into State and regional patterns of evaluation and accreditation? Should all these systems be coordinated or left to operate as autonomous units? What guidelines for Federal funding patterns can be made?

When considering what type of institution is most efficient in cost-benefit terms, there are limited data. Kaufman's(16) studies comparing the earning power of vocational school graduates with their equated counterparts from the general curriculum found that vocational graduates indeed had higher average wages and greater employability, especially in the first years after graduation. Corrazzini,(17) on the other hand, found no significant benefit, but his research failed to make comparisons between equated groups of student.

REFERENCES

1. Ash, Lane C. et al. Instruments and Procedures for the Evaluation of Vocational/Technical Institutions and Programs. Washington, D.C.: American Vocational Association. 1971. 144P.

2. Panitz, Adolph. "What Makes a High School Comprehensive?" In Gordon F. Law (Ed.) Current Concepts in Vocational Education. Washington, D.C.: American Vocational Association. 1971. P. 204.

3. Keller, Franklin J. The Comprehensive High School. New York: Harper and Brothers. 1955.

4. Conant, James B. The American High School Today. New York: McGraw-Hill. 1959.

5. Administration of Vocational Education: Vocational Education Bulletin No. 1. Washington, D.C.: Federal Security Agency. 1948. P. 13.

6. Trade and Industrial Education: Organization and Administration Bulletin No. 17 (Trade and Industrial Education Series No. 1) Washington, D.C.: Federal Board for Vocational Education. 1918.

7. Administration of Vocational Education: Vocational Education Bulletin No. 1. P. VII.

8. Coe, Burr D. "What is Quality Vocational Education?" In Gordon F. Law (Ed.) Current Concepts in Vocational Education. P. 191.

9. Law, Gordon F. Administrative Positions and Functions in Occupational Education: A Study of the Duties and Responsibilities of Public School Administrators as They Affect the Initiation, Development, and Conduct of Federally-Aided Programs in Occupational Education in New York State. Doctoral dissertion. New York: New York University. 1966. 243P.

10. Shimberg, Benjamin. "How, When and Where of Vocational Instruction." In Gordon F. Law (Ed.) Current Concepts in Vocational Education. P. 186.

11. Kaufman, Jacob et al. The Role of the Secondary Schools in the Preparation of Youth for Employment. University Park, Pennsylvania: Institute for Research on Human Resources, The Pennsylvania State University. 1967.

12. Vocational-Technical Terminology. Washington, D.C.: American Vocational Association. 1971. P. 52.

13. Venn, Grant. Man, Education and Work. Washington, D.C.: American Council on Education. 1964.

14. Horowitz, Morris D. and Irwin L. Herrnstadt. The Training of Tool and Die Makers. Boston: Northeastern University. 1969. 424P.

15. Applied Research Projects Supported in FY 1974 Under Part C of the Vocational Education Amendments of 1968. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education. 1974. (V0221VZ).

16. Kaufman, Jacob et al. An Analysis of the Comparative Costs and Benefits of Vocational Versus Academic Education in the Secondary Schools. University Park, Pennsylvania: Institute for Research on Human Resources, The Pennsylvania State University. 1967. 156P.

17. Corrazzini, A.J. Vocational Education, A Study of Benefits and Costs. Princeton: Industrial Relations Section, Princeton University. 1966. 126P.

Chapter III

MANPOWER DELIVERY SYSTEMS

The Manpower Report of the President statistically treats the major manpower programs and gives additional attention to innovative program development. A review of these initiatives, which include a massive decentralization effort and special emphasis upon such groups as veterans, welfare recipients, offenders, American Indians, and Spanish-speaking Americans, suggests that manpower programs are designed to cope with particular problems in specific ways.

Ellis is especially pertinent here:

> Manpower programs came into being to meet a social condition of there being millions of individuals who for a variety of different reasons had fallen through the cracks of the economic order and whom no other programs or institutions were serving. The plural in "manpower programs" should be emphasized. Taken collectively they are a series of flexible programs meeting a wide variety of needs in a wide variety of individuals. There is no homogeneity in the "disadvantaged" beyond their being generally under- or unemployed. The groups named in the official definition happen to be the ones in which most of these individuals are found. The causes for their unpreparedness for the work world in which most people adjust are multiple. Youth suffer particularly from immaturity, inexperience, immobility, and because most employers do not want them. Older workers meet different prejudices. Add discrimination to minorities and women in addition to whatever educational and skill deficiences there may be, plus the malaise and despair that come to many as the result of some or a combination of all of these and one has to cope with many things. Social condition mandated action. The Federal manpower programs are a pragmatic response. They did not spring from a philosophy of how-to-do, but have become more than a Band-Aid. They remain supplementary, but necessary.(1)

As might be expected, the diversity of manpower concerns has brought with it a variety of problems. Although certain of these problems have been dealt with more recently, Assistant Secretary for Manpower Weber's 1969 analysis is of some value:

> Our problems in manpower, both conceptually and programmatically, arise from three different commitments to manpower, reflecting different constituencies,

> different program goals, different funding arrangements, different bureaucracies, and different delivery systems, all superimposed one on the other. Problems have arisen from these programs as follows: First, a proliferation of categorical programs (about thirty), which reflect different policy directions... Second, there has clearly been duplication of delivery systems... Third, these programs have reflected almost exclusively Federal initiative and control, with very little effort to involve governmental units at the State and local levels... Fourth, there have been few attempts to coordinate manpower programs with other major manpower institutions such as vocational rehabilitation, Vocational Education, and welfare programs (The CAMPS program has been little more than a paper-stapling program.).(2)

Since 1969, the Manpower Administration has moved to remedy the deficiencies described by Weber, primarily by decategorizing and decentralizing at the local level. The Manpower Report of the President describes the rationale for this development:

> Movement in this direction, underway for several years, has been impelled by the realization that program outcomes can be improved through better tailoring of activities to local needs. Local control and comprehensive, rather than categorical, programs should also diminish the present administrative difficulties of overlapping, competing efforts. In the near future, the revenue sharing concept will be employed in a majority of labor market areas to put in place a comprehensive manpower services delivery system, combining available resources into a lump-sum grant administered by the major or other local elected officials.(3)

In sum, manpower delivery systems are undergoing a major transformation. The rhetoric of this change at least takes into consideration the past failings of manpower policy-making. Hopefully, the changes will be real and will confront the issues.

A most promising development here is the enactment of the Comprehensive Employment and Training Act of 1973, which involves consolidation of manpower programs, a revenue sharing approach, public employment programs, and creation of a National Commission for Manpower Policy.(4)

REFERENCES

1. Ellis, Mary L. "Federal Manpower Programs." (Mimeo). Washington, D.C.: Technical Education Research Centers, Inc. 1973. P. 11.

2. Vocational Education and Manpower Training: Report of the AVA National Legislative Seminar. Washington, D.C.: American Vocational Association. 1969. P. 16.

3. 1973 Manpower Report of the President. Washington, D.C.: U.S. Department of Labor. 1973. P. 2.

4. Congressional Quarterly Weekly Report. Vol. 31 No. 52. December 29, 1973. P. 3464.

Chapter IV

INFORMATION SYSTEMS

FEDERAL-LEVEL VOCATIONAL EDUCATION INFORMATION SYSTEMS

An assessment of the impact of Vocational Education on the labor market requires accurate data -- not now available Nationally -- concerning numbers and types of students trained and placed and especially information on the long-term experiences of early leavers and graduates.

Information of this sort is not only essential to a complete treatment of the question of Vocational Education's impact, but also is of immediate importance to vocational educators at all levels. Little, in his Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students, describes the use of such information:

> Follow-up studies of graduates of Vocational Education programs, if carefully planned and executed, can provide an important base of information to educational planners and administrators, and to future vocational-technical students. Where coupled with appropriate economic analysis this type of information can point the way to improved decision-making by governments and institutions on questions of priorities among types, levels and fields of education and training programs, and on decisions about allocation of resources to these programs.(1)

Unfortunately, it is difficult to speak with much confidence about the fate of Vocational Education graduates in the labor market. This is especially true when dealing with Nationally aggregated data. The Project Baseline Report notes that the USOE Vocational Education reporting system "contains only student data, financial data, and instructional personnel data." Federal arrangements for obtaining placement and follow-up data appear to be rudimentary and completely dependent on the cooperation of the individual States.

The Federal government seems to have recognized the inadequacy of the Federal Vocational Education information system and, among other expedients, set up Project Baseline as a partial answer. The Introduction to the Second National Report describes the role of the project:

> Project Baseline was established to get the information everyone needs and no one seems to have. It is a joint undertaking. The Appropriations Committees of Congress asked for it and directed that specific funds be used to carry it out. The National Advisory Council on Vocational Education was asked to be the agency to do the job. The U.S. Office of Education

> has provided the funds and contracted with Northern Arizona University to provide the staff... Altogether, more than 700 people have provided time and effort in research, analysis, writing and reviewing the materials produced.(2)

Project Baseline is not intended as a replacement for a permanent and on-going Federal Vocational Education information system. For its data, the project depends on the States' goodwill and cooperation, rather than upon any routinized set of systems and procedures. While the project has done excellent work in obtaining whatever statistics are available, and in analyzing them, it is, for the most part, incapable of generating the original data itself.

This is recognized in the seventh recommendation made in the Second National Report:

> The use of Federal reporting forms in Vocational Education, with their problems in definition and communications, should be discontinued, replaced by a National uniform reporting and accounting system.(3)

Characteristics of this proposed system are discussed in the body of the report.

STATE-LEVEL INFORMATION SYSTEMS

The National educational information system relies almost exclusively upon the individual States for data. Unfortunately, State reporting systems vary in both general quality and kinds of particular measures obtained. This variation seriously compromises the value of Federal statistics.

Baseline's Second National Report identifies three major problems in educational information systems: variations in definitions of Vocational Education, problems of communication, and problems of careless or dishonest handling of data. The problem of definition is a critical one.

The report speaks of the need to find a better definition of Vocational Education:

> Some States continue to follow the practice long established in Vocational Education of including in their reports only Federal or State reimbursed programs. This has the advantage of simplicity, but to define Vocational Education on such a basis assumes that reimbursement in all States is the same.
>
> A second method of defining Vocational Education, and one used in a number of States, is for the State department to prescribe conditions which have to be met by any course in order to qualify as Vocational

> Education. These usually include the number of hours the class meets per day or per week, the level at which it is taught, and the instructor's qualifications. One or two States require that courses must be part of prescribed programs to qualify as Vocational Education.(4)

Other problems of definition discussed in the Project Baseline report concern such terms as adult and post-secondary, handicapped and disadvantaged, and the classification of programs at various institutional levels and fields of service.

State-level information systems for placement and follow-up data are obviously of direct interest. Only the State of Pennsylvania had a fully automated system for collecting follow-up data as of the writing of the Second National Report, while a number of others, including Maryland, New Jersey, and Oklahoma, were approaching this ideal. In States with less advanced systems, follow-up data may be contaminated on both the local and State levels during manual handling, through error or deliberate distortion. This has clear implications for attempts to develop national figures.

A related problem is lack of standardization in the measures used. The best State-level systems are consistent in themselves, but not necessarily with one another. Data obtained from different States may be difficult to compare or combine.

A project recently funded at the University of Tennessee, Development and Implementation of a Model for a Regional Information System for Vocational-Technical Education, eventually may provide some direction.(5) The objectives of this project are:

1. To develop a model for a regional information system for Vocational-Technical Education.

2. To implement a regional information system for Vocational-Technical Education.

3. To determine the feasibility of regional research and development efforts for information systems in terms of:

    a. Sharing
    b. Range and scope of information requests
    c. Problems encountered in tracking migration of trained manpower

The Second National Report recommends that the data listed below be part of State-level follow-up information systems:

1. Principal current activity: employed, attending school, armed services, or other temporary situation, unemployed looking for work, unemployed not looking for work.

2. If employed, is it in the field for which trained or related field?

3. If employed outside of field, reason for change: only job available, personal choice, etc.

4. If employed outside of field, is career goal still in the field?

5. If not employed for any reason, is career goal still in the field for which trained?

6. Was Vocational Education program beneficial in ways other than immediate employment?

7. Current salary bracket, if employed.

8. Job title, if employed.

9. Employer, name, and address, if employed.(6)

The development of State follow-up information systems using these or similar items would be a necessary prelude to a significant improvement of the Federal Vocational Education information system. The States themselves would find improved quality of information useful in program assessment and State-level planning and decision-making.

One promising development is the recent funding, under Part C of the Vocational Education Amendments of 1968, of a North Carolina State University project entitled The Development of a Basic Vocational Education Information System.(7) This project is to produce a set of information requirement specifications at the elementary, secondary, post-secondary, and adult levels. Specific objectives include the identification of a set of informational elements and analysis of the informational needs of selected user groups.

Improvement in State-level information systems is essential to any meaningful advance in our ability to understand the impact of Vocational Education on the labor market. Unless such changes are made, any statements about the actual impact of Vocational Education will remain in the realm of gross generalizations substantiated only by questionable and perhaps downright inaccurate data.

LOCAL-LEVEL INFORMATION SYSTEMS

Local educational agencies look to State departments of education for leadership in developing information systems. When this leadership is provided, a locality is able to develop data which are both useful to itself and comparable to data developed throughout the State.

Local districts are able to design systems of data collection on their own initiative. Such efforts are often innovative and of direct interest to those planning more extensive Vocational Education information systems. However, local information systems are isolated, and the particular measures developed may not be comparable to those developed else-

where, or replicable in other districts.

What is needed is a national Vocational Education information system which the States would provide with standardized, high quality data. The States would be responsible for obtaining necessary data from the localities, both removing this burden from them and providing them with useful information about program effectiveness.

Beyond this, a local district would be able to establish a system it deemed essential to provide information useful to assessment of its programs. This would be especially appropriate where local programs had unique or innovative characteristics for which specialized assessment instruments would be most applicable. National and State Vocational Education information systems are vital, but they may not be able to provide local districts with all the information required. Just as most Vocational Education takes place at the local level, so must information be generated which is of practical use to the local school district.

MANPOWER INFORMATION SYSTEMS

The Manpower Administration of the U.S. Department of Labor maintains an automated follow-up information system. There exists also an Employment Service Automated Reporting System (ESARS) which receives from State employment services data regarding MDTA Institutional and WIN programs. In effect, graduates of all manpower programs are subjected to continuing follow-up, though some error may enter the system at the local level, where data about students are first entered.

The Project Baseline Second National Report's recommendation for a standardized national reporting and accounting system makes provision for inclusion of the Manpower Administration's information system:

> The same uniform reporting and accounting system for Vocational Education should be used by the Manpower Administration for its training programs, and the data from each should be compatible for State and national tabulation and analyses. This does not mean that RAS, the Manpower Administration's new automated information system, cannot be used or would have to be greatly altered. It would have to advance to the use of individual enrollee files, but this is anticipated in any case. The National vocational automated information system should be developed so that compatibility between these two systems could be built-in.(8)

REFERENCES

1. Little, J. Kenneth. Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students. Columbus, Ohio: The Center for Vocational and Technical Education. 1970. P. 35.

2. Lee, Arthur M. and Robert Sartin. Learning a Living Across the Nation. Project Baseline First National Report. Vol. I. Flagstaff: Northern Arizona University. 1973. P. 3.

3. Lee and Sartin, Vol. II. P. 376.

4. Lee and Sartin, Vol. II. P. 15.

5. Applied Research Projects Supported in FY 1974 Under Part C of the Vocational Education Amendments of 1968. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education. 1974. (V0306VZ).

6. Lee and Sartin, Vol. II. P. 37.

7. Applied Research Projects.

8 Lee and Sartin, Vol. II. P. 376.

Chapter V

IMPACT OF VOCATIONAL EDUCATION ON THE LABOR MARKET

Whatever the limitations of the information produced by existing placement and follow-up information systems, Project Baseline has obtained data from 38 States, the District of Columbia, and Puerto Rico, and these statistics merit some attention.

In 1971, a total of 1,139,074 students in secondary, post-secondary, and adult Vocational Education programs completed training. Another 112,141 left prior to normal completion with marketable skills. Of the combined total of 1,251,215 students, 625,273 were employed. This represents a placement rate of only 49.97 percent. But, when the percentage is figured on the basis of those available for work, it increases to 95.50 percent.(1)

However, a significant number of the placements -- 143,279 -- were in fields unrelated to the training undergone. As might be expected, the percentage varied widely among the Vocational Education subject areas.

Vocational Education placements can be compared with projected labor demands. According to Baseline's Second National Report, Vocational Education students in 1972 filled 18.81 percent of the labor demand in agriculture, 10.36 percent of the demand in distributive occupations, 15.74 percent of the demand in health occupations, 9.27 percent of the demand in gainful home economics, 24.52 percent of the demand in office occupations, 24.72 percent of the demand in technical occupations, and 13.34 percent of the demand in trade and industrial occupations.(2)

Unfortunately, this particular tabulation does not separate placements in unrelated fields from those in related fields, and there are some unlikely results. For example, a table shows that in the State of Washington, 619 graduates were placed in 41 technical job openings (supply exceeding demand by 1,409.76 percent).(3) Vocational educators undoubtedly are occasionally guilty of oversupplying trained graduates in particular areas, but in this case the results probably stem from the statistical procedure used. In fact, many of these graduates probably entered occupations unrelated to their training.

When only placements within field of training are considered, the results lower Vocational Education's claimed role in filling labor demands. But, on the basis of currently available data, it is difficult to develop any meaningful statements regarding Vocational Education's role in filling national trained manpower needs.

Considerable research has been done however, on the effects of vocational training upon the individual graduate. Numerous follow-up studies have been conducted, sometimes with contradictory results. Little summarizes these results:

> Despite the inadequacies and deficiencies of the follow-up studies, certain findings seem to constitute a refrain. The Vocational-Technical Education programs are serving important parts of our population in ways that these people would not be helped without them. Those who move directly to jobs from such training have an advantage in earnings, not always great, but still an advantage, over their untrained cohorts. Most persons like their jobs, and the vocationally trained persons are especially satisfied if they find jobs for which they are specifically prepared. The great majority of vocationally trained high school graduates obtain employment in or near the communities in which they attended school. Graduates obtain their jobs primarily from their own efforts or by the help of friends or relatives; secondary schools, teachers and counselors, are typically not credited with being greatly helpful to students moving to jobs rather than to colleges.(4)

Little goes on to note differences in program areas and levels of training. Program areas ranged in placement rates from high levels in health occupations education and distributive education to lower rates for agricultural education and home economics. He tentatively concludes that placement rises with level of training. Many of these differences he believes to be the result of diversities in credentialing. Here he finds fault with employer hiring practices and over reliance upon paper credentials.

The problems of credentialing and employment practices are explored in Ivan Berg's controversial and sometimes misunderstood work, Education and Jobs: The Great Training Robbery.(5)

While The Great Training Robbery is sometimes taken as an indictment of Vocational Education, occupational training as such hardly enters the picture. The author's main concern seems to be with the vicious circle created by increased emphasis upon educational credentials. As more people graduate from high school, or from college, or from graduate programs, employers raise their hiring standards, using educational attainment as a handy, if inaccurate, measure of probable job performance. Formal credentials may be irrelevant to many jobs. At the same time, many persons find themselves with elevated aspirations in low-paying or low-status positions, resulting in dissatisfaction.

Vocational educators have recognized this phenomenon and are engaged constantly in efforts to train students to meet the actual needs of employers. It is unfortunate that employers often attach unnecessary requirements in their hiring policies.

Berg considers elsewhere the particular problems facing Vocational Education in an economy where employers regard credentials as more important than particular skills. He seems to advise vocational educators to roll with the punch:

> The crucial issues for Vocational Education are those of holding and helping students enter occupations. I would urge that these educators avoid programs: 1) that impose, by highly specialized training, unnecessary constraints on choice; 2) that eschew careful considerations of the placement problems; 3) that do not provide abundant guidance regarding occupations and opportunities; and 4) that are not very closely integrated with the planning of employers, public and private, in local and regional labor markets.(6)

The task force report Work in America succinctly states the problem:

> The market value of education has driven out its other values. One consequence of this has been to require, needlessly, ever higher credentials for the same work.(7)

Another finding of the task force may be less appealing:

> Vocational Education in the high schools has failed to give students useful skills or place them in satisfying jobs.(8)

It is unfortunate that Work in America is as well known as it is. The discussion of Vocational Education in particular seems to be characterized by a fundamentally faulty perception of the theory and practice of Vocational Education; partial, distorted, and misleading interpretations of past research; and a general attempt to willfully match findings with pre-established conclusions.

Among the vocational educators who seriously have questioned the scholarship of the Vocational Education section of Work in America are Schaefer,(9) Koo,(10) and a committee established by then Associate Commissioner of Education Worthington.(11)

So far, discussion has focused on the questions of placement and earnings of Vocational Education graduates. Much of the literature is concentrated here, since the issues raised are critical to the very justification of Vocational Education.

Unfortunately, other types of labor market impact have not received their share of attention. Until more thorough investigation of such considerations as the impact of Vocational Education on attitudes toward work, job satisfaction, hiring practices, discrimination in employment, occupational mobility, productivity, and economic development, it is difficult to draw any conclusions.

REFERENCES

1. Lee, Arthur M. and Robert Sartin. Learning a Living Across the Nation. Project Baseline Second National Report. Vol. II. Flagstaff: Northern Arizona University. 1973. P. 163.

2. Lee and Sartin, Vol. II. P. 188.

3. Lee and Sartin, Vol. II. P. 188.

4. Little, J. Kenneth. Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students. Columbus, Ohio: The Center for Vocational and Technical Education. 1970. P. 36.

5. Berg, Ivar. Education and Jobs: The Great Training Robbery. New York: Praeger. 1970. 200P.

6. Berg, Ivar. "Manpower Analysis and Vocational Education: Problems and Perspectives." In Carl J. Schaefer and Jacob J. Kaufman (Eds.) Vocational Education: Social and Behavioral Perspectives. Lexington, Massachusetts: D.C. Heath and Company. 1971. P. 123.

7. Work in America. Report of a Special Task Force to the Secretary of Health, Education, and Welfare. Cambridge, Massachusetts: MIT Press. 1972. P. 134.

8. Work in America. P. 134.

9. Schaefer, Carl J. "The Content of Work in America is Inaccurate, Ill-Conceived, and Poorly Stated." Feedback. Vol. 8 No. 1. Winter 1973. P. 3.

10. Koo, Po-Yen. "A Rebuttal to the Attack on Vocational Education in Work in America, an H.E.W. Report." Feedback. Vol. 8 No. 1. Winter 1973. P. 1.

11. Feedback. Vol. 8 No. 4. Fall 1973.

Chapter VI

IMPACT OF MANPOWER TRAINING ON THE LABOR MARKET

As noted earlier, manpower programs serve a wide variety of social and political purposes. Ellis points out that manpower programs are not synonomous with training programs and goes on to put these programs in an economic perspective:

> ...it should be noted that manpower programs can neither create jobs, nor make better jobs, except marginally. Such depend upon an expanding economy and one which eliminates unskilled and low paying ones. This depends on fiscal, monetary, and trade policies, and upon technology. Manpower programs do not touch these. They must operate within conditions of the economy as it exists at any given moment. Although, the "name of the game" for individuals is to prepare them to get and hold jobs, manpower programs should not be held responsible for a significant effect on the unemployment rate.(1)

Nonetheless, training does take place and placements are made. The Manpower Report of the President includes the following table for Fiscal 1972.(2)

Program	Terminations	Employed Completers	Employment Rate
All Programs	751,400	336,800	45
MDTA-Institutional	153,800	81,500	53
JOBS	91,300	44,200	48
MDTA-JOBS Optional	50,600	28,000	55
MDTA-OJT	29,200	23,300	80
PSC	68,500	26,200	38
CEP	88,000	39,300	45
Job Corps	48,600	35,000	72
WIN	110,200	33,300	30
PEP	57,400	17,800	31
Construction Outreach	53,800	8,200	15

A number of manpower programs, including Neighborhood Youth Corps and Operation Mainstream, were excluded from this tabulation, because immediate placement was not among their objectives.

The Manpower Report provides some information on earnings, but primarily in terms of comparison among different programs. A number of earlier studies imply that manpower training does have a pay off in increased earnings for disadvantaged workers.(3)

As to the point raised by Ellis regarding effect upon the unemployment rate, at least one labor economist has argued that manpower programs have decreased the unemployment rate by as much as 0.3 percentage points.(4) A methodological question may be raised, however, as to whether or not those in subsidized employment should be fairly counted for such a purpose. As Ellis notes, fifty-five percent of manpower financing is directed to various types of work support.(5)

Clearly, manpower programs do serve to bring at least some of their disadvantaged target populations into the work force. Depending on the criteria set for their success, they may be considered successful in this. In general, however, it may be argued that the intent of manpower training is to provide economic assistance, and the potential for economic independence, to the individual trainee. Manpower training is remedial. It may be unfair, then, to attempt to assess these programs for what they are not, or to assess them in terms of impact on the labor market.

REFERENCES

1. Ellis, Mary L. "Federal Manpower Programs." (Mimeo). Washington, D.C.: Technical Education Research Centers, Inc. 1973. P. 11.

2. 1973 Manpower Report of the President. Washington, D.C.: U.S. Department of Labor. 1973. P. 55.

3. Little, J. Kenneth. Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students. Columbus, Ohio: The Center for Vocational and Technical Education. 1970. P. 29.

4. Small, Sylvia S. "Statistical Effects of Work-Training Programs on the Unemployment Rate," Monthly Labor Review. Vol. 95 No. 9. September 1972. P. 7.

5. Ellis, P. 7.

Chapter VII

RECOMMENDATIONS

PROGRAM EVALUATION

Federal guidelines to States relating to evaluation are now too general. Specific guidelines need to be developed which provide for such categories as: the State system of education, local administration, delivery systems, institutional resources, and teacher competencies. Special attention needs to be given to program by program accountability as determined by job placement and follow-up data and to the delivery of continuing Vocational Education opportunities to adults.

LOCAL ACCOUNTABILITY FOR VOCATIONAL EDUCATION

When the Vocational Education Act of 1963 superceded the Smith-Hughes Act, the prescriptive identification of appropriate vocational delivery systems was virtually eliminated. Although many benefits have accrued from this change, a negative result has been the delivery of new programs that are full of gaps and omissions. Especially damaging is the lack of a full spectrum of continuing Vocational Education programs for out-of-school youth and adults.

It is recommended that State approval of local Vocational Education programs be contingent upon the local agency's ability to deliver a comprehensive program of Vocational Education for youth and adults. It is further recommended that research studies be conducted to assess the cost-benefit efficiency of various vocational delivery systems in specific occupational fields and at all levels.

ROUTES TO EMPLOYMENT

The two traditional forms of data used for determining what vocational courses to teach are labor market projections and student interests. Another source of information, which is frequently overlooked, is the route that is taken to achieve employment in various skilled and technical occupations.

It is recommended that national and regional research studies be conducted to trace historic paths to competency status in specific occupations; to identify changes taking place in these paths; and to determine those occupations which most require school-centered Vocational Education and those occupations which do not call for formal vocational schooling.

STATE SUPERVISION OF LOCAL PROGRAMS

One of the weakest links in the State-local delivery of Vocational Education is that of supervision and assistance to teachers. The problem is especially serious in comprehensive high schools and community colleges, where the vocational component may be so limited in size and scope that qualified local supervisors are not employed. State plans give little

attention to this vital phase of the educational process through the provision of supervising personnel and/or money for their travel.

It is recommended that Federal guidelines to States provide more specific standards for field supervision by State education department personnel and for the local supervision of vocational instruction.

INFORMATION SYSTEMS

Before the impact of Vocational Education and manpower training on the national labor market can be assessed accurately, procedures for obtaining reliable data on graduate placements must be developed. This will require a national Vocational Education information system, linked and compatible with manpower data collection systems. Also involved will be standardized data collection procedures by the States. Such a system not only would benefit Federal policy-makers, but also would aid State and local administrators in decisions about local program development.

IMPACT STUDIES

In spite of the handicaps due to lack of a national data base, much research has been done in the area of graduate placement and earnings. Other types of labor market impact also should be investigated. Such considerations include attitudes toward work, job satisfaction, hiring practices, discrimination in employment, occupational mobility, productivity, and economic development.

BIOGRAPHICAL SKETCH OF THE AUTHOR

Dr. Gordon F. Law is chairman of the Undergraduate Department of Urban Education at Rutgers University and member of the Graduate Department of Vocational-Technical Education. He has worked as a journeyman bricklayer, teacher and administrator of area vocational schools, and staff member of the American Vocational Association. He has written extensively for the American Vocational Journal as well as other professional publications, and he was editor of the first yearbook of the American Vocational Association.

☆U.S. Government Printing Office: 1975 - 684-263/17, Region No. 9-I